

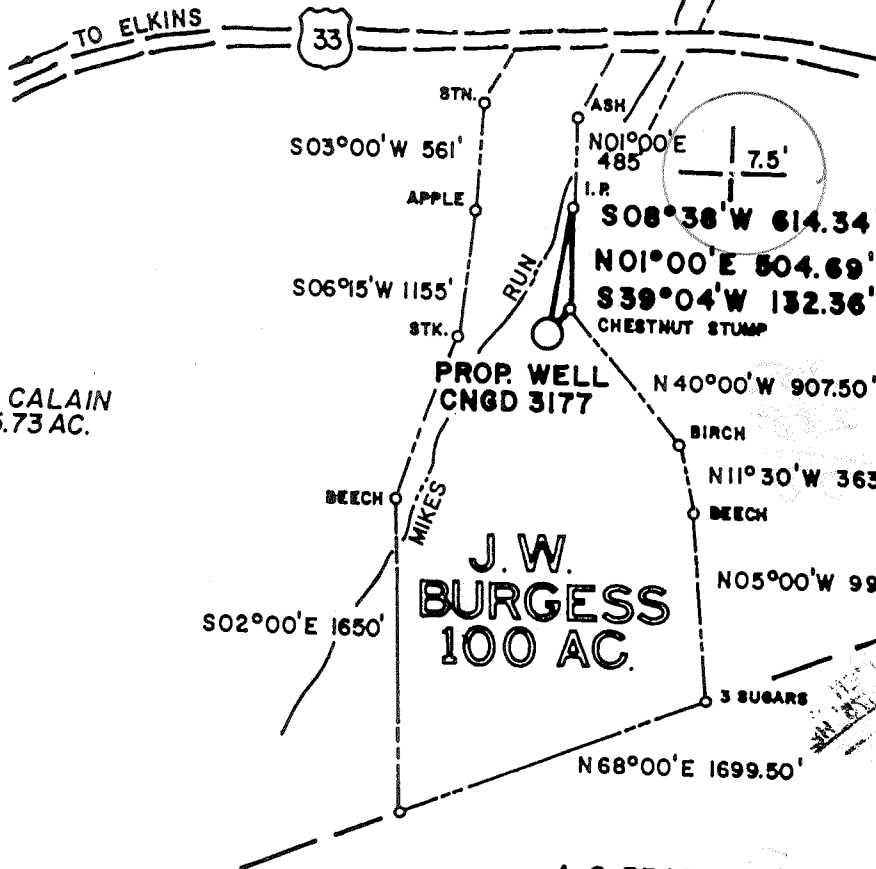
(+) DENOTES LOCATION OF WELL ON U.S.G.S. TOPOGRAPHIC MAP

NOTE:
BURGESS'S SPRING & CISTERN
N24°45' W 750'

Janil 9/24/88
11 2/14/89

LATITUDE 38°55'00"

PROPOSED WELL
CNGD 2845



G.L. CALAIN
85.73 AC.

J.W. BURGESS
100 AC.

POLINO
ENTERPRISES
30.94 AC.

A. S. BRADY
286 AC.

N 17° 05' E 167.90' TO A APPLE
N 34° 09' E 164.18' TO A YELLOW POP.

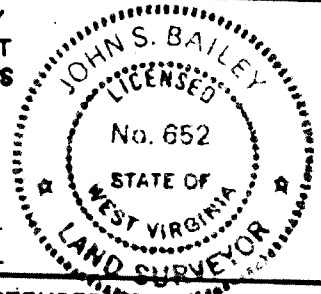
William C Hayward
ok.
Sept. 19, 1988.

MSES consultants, inc.

FILE NO. MSES 87-788
DRAWN BY RYS - JSB
SCALE 1" = 1000'
MIN. DEGREE OF ACCURACY 1 IN 200
PROVEN SOURCE OF ELEVATION
BM 2175' HEADWALL R.R. BRIDGE

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF MINES.

(SIGNED) John S. Bailey
R.P.E. _____ L.L.S. 652



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION



DATE SEPTEMBER 19, 1987
OPERATOR'S WELL NO. CNGD 3177
API WELL NO. 47 - 083 - 1077
STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
IF "GAS", PRODUCTION STORAGE DEEP SHALLOW
LOCATION: ELEVATION 2541.70 WATERSHED MIKES RUN OF SHAVERS FORK
DISTRICT BEVERLY 1 Horton WC COUNTY RANDOLPH
QUADRANGLE BOWDEN, W.V. 75' 260 060 4 NEAREST TOWN ELKINS
SURFACE OWNER JOHN & SYLVIA BURGESS ACREAGE 103.76
OIL & GAS ROYALTY OWNER J.W. BURGESS LEASE ACREAGE 100
LEASE NO. DV-22500

PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE
PLUG OFF OLD FORMATION PERFORATE NEW FORMATION
OTHER PHYSICAL CHANGE IN WELL (SPECIFY) FEB 17 1989
PLUG AND ABANDON CLEAN OUT AND REPLUG
TARGET FORMATION ORISKANY ESTIMATED DEPTH 7200'
WELL OPERATOR CNG DEVELOPMENT COMPANY DESIGNATED AGENT GARY A. NICHOLAS
ADDRESS P.O. BOX 15746 ADDRESS RT. 2 BOX 698
PITTSBURGH, PA. 15244 BRIDGEPORT, W.V. 26330

FORM IV-6

DEEL Well
1-1 unnamed (o)

RAND. COUNTY
1077 PERMIT

(+)- DENOTES LOCATION OF WELL ON U.S.G.S. TOPOGRAPHIC MAP

NOTE:
BURGESS'S SPRING & CISTERN
N24°45'W 750

Janice 9/30/88

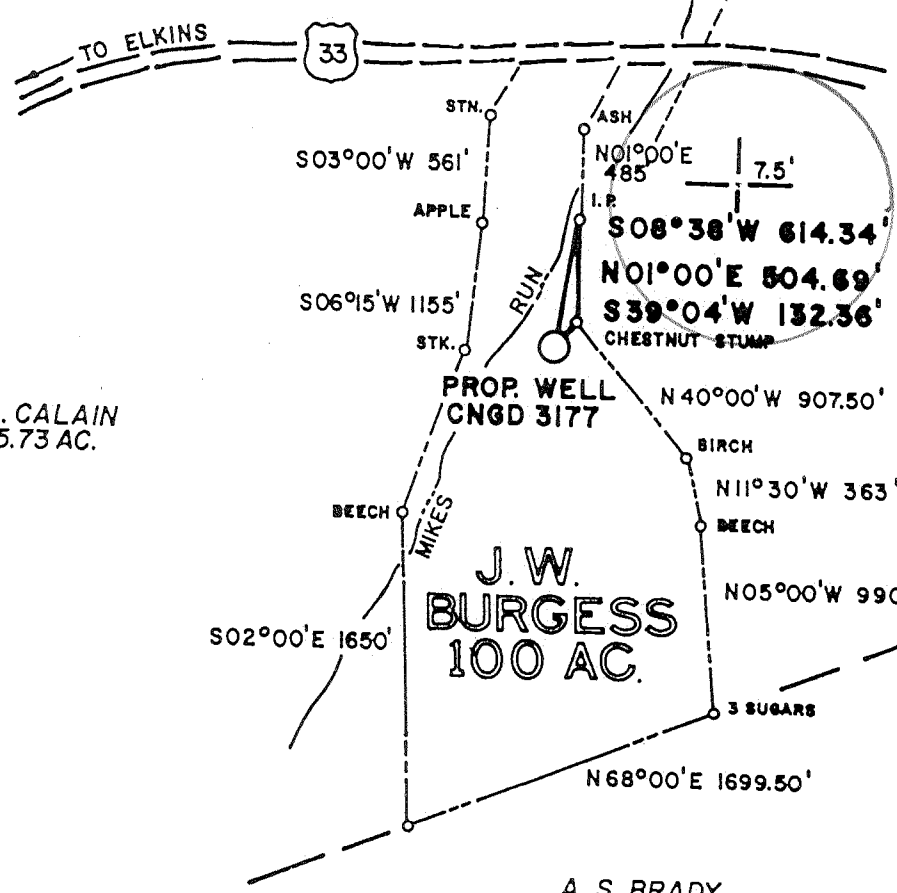
*0.94
321*

LATITUDE 38°55'00"

5125'

LONGITUDE 79°42'30"

4850'



*0.945
0.96w*

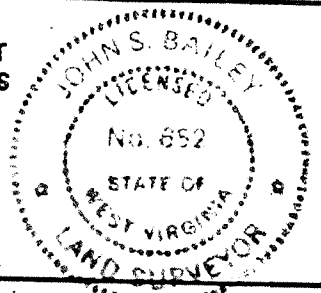
*William C. Hayward
Sept. 19, 1988*

MSES consultants, inc.

FILE NO. MSES 87-788
DRAWN BY RYS - JSB
SCALE 1"=1000'
MIN. DEGREE OF ACCURACY 1 IN 200
PROVEN SOURCE OF ELEVATION
BM 2175 HEADWALL R.R. BRIDGE

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF MINES.

(SIGNED) John S. Bailey
R.P.E. _____ L.L.S. 652



**STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION**



DATE SEPTEMBER 15, 1987
OPERATOR'S WELL NO. CNGD 3177
API WELL NO. 47 - 083 - 1077
STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
IF "GAS", PRODUCTION STORAGE DEEP SHALLOW
LOCATION: ELEVATION 2541.70 WATERSHED MIKES RUN OF SHAVERS FORK
DISTRICT BEVERLY I COUNTY RANDOLPH
QUADRANGLE BOWDEN, W.V. 7.5' 260 0604 NEAREST TOWN ELKINS
SURFACE OWNER JOHN & SYLVIA BURGESS ACREAGE 103.76
OIL & GAS ROYALTY OWNER J.W. BURGESS LEASE ACREAGE 100
LEASE NO. DV-22500

PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE
PLUG OFF OLD FORMATION PERFORATE NEW FORMATION
OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____
PLUG AND ABANDON CLEAN OUT AND REPLUG

TARGET FORMATION ORISKANY ESTIMATED DEPTH 7200' OCT 17 1988
WELL OPERATOR CNG DEVELOPMENT COMPANY DESIGNATED AGENT GARY A. NICHOLAS
ADDRESS P.O. BOX 15746 ADDRESS RT. 2 BOX 698
PITTSBURGH, PA. 15244 BRIDGEPORT, W.V. 26330

Deep well



IV-35
(Rev 8-81)

Date September 15, 1989

RECEIVED
SEP 26 1989

State of West Virginia
Department of Mines
Oil and Gas Division

Operator's
Well No. 3777
Farm J & S Burgess
API No. 47 - 83 - 01077

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

WELL OPERATOR'S REPORT
OF

DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil / Gas x / Liquid Injection / Waste Disposal /
(If "Gas," Production / Underground Storage / Deep x / Shallow /)

LOCATION: Elevation: 2541.70 Watershed Mikes Run of Shavers Fork
District: Beverly County Randolph Quadrangle Bowden

COMPANY CNG Development Company

ADDRESS P. O. Box 15746
Pittsburgh, PA 15244

DESIGNATED AGENT Rodney J. Biggs

ADDRESS Rt. 2 Box 698
Bridgeport, WV 26330

SURFACE OWNER John & Sylvia Burgess

ADDRESS Rt. 1 Box 107
Elkins, WV 26241

MINERAL RIGHTS OWNER Same as Surface

ADDRESS

OIL AND GAS INSPECTOR FOR THIS WORK

Phil Tracy ADDRESS P. O. Box 2536
Elkins, WV 26241

PERMIT ISSUED 2/17/89

DRILLING COMMENCED 6/24/89

DRILLING COMPLETED 7/12/89

IF APPLICABLE: PLUGGING OF DRY HOLE ON
CONTINUOUS PROGRESSION FROM DRILLING OR
REWORKING. VERBAL PERMISSION OBTAINED
ON

Casing Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.	38	38	
13-10"	203	203	To Surf.
9 5/8	2008	2008	To Surf.
8 5/8			
7			
5 1/2	7770	7770	495 sks
4 1/2			
3			
2-3/8	7558	7558	---
Liners used			

GEOLOGICAL TARGET FORMATION Oriskany Depth 7200 feet

Depth of completed well 7791 feet Rotary x / Cable Tools

Water strata depth: Fresh -0- feet; Salt feet

Coal seam depths: -0- Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation Chert Pay zone depth 3284-3750 feet

Gas: Initial open flow Mcf/d Oil: Initial open flow Bbl/d

9/8/89 Final open flow 1.1 M Mcf/d Final open flow Bbl/d

Time of open flow between initial and final tests 4 hours

Static rock pressure 2700 psig (surface measurement) after 24 hours shut in

9 MCF (If applicable due to multiple completion--)

Second producing formation Oriskany Pay zone depth 7596-7641 feet

Gas: Initial open flow Mcf/d Oil: Initial open flow Bbl/d

8/14/89 Final open flow 800 Mcf/d Oil: Final open flow Bbl/d

Time of open flow between initial and final tests 4 hours

Static rock pressure 2700 psig (surface measurement) after 24 hours shut in

SEP 29 1989

(Continue on reverse side)

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

Perforated Chert 3284 - 3750, 84 shots, .46
Oriskany 7596 - 7641, 122 shots, .46

Acizide Oriskany with 5500 gal Acid, Ave Rate 17.1, Ave Pres. 3836, Ave HHP 1612

Chert with 9250 gals. acid, Total fluid 547 bbl, Total 310,000 SCFN₂,
Ave Rate down tubing 5 BPM, Ave Rate down Annulus 18 BPM

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all free and salt water, coal, oil and c
Harrell Shale			6888	6958	
Tully			6958	7072	
U. Marcellus			7072	7131	
Purcell			7131	7204	
L. Marcellus			7204	7244	
Chert			7275	7405	
Needmore			7405	7463	
Oriskany			7463	7642	
Helderberg			7642	7791	
<u>LOG TOPS</u>					
Tully Ls			6961	6970	
U. Marcellus			7072	7130	
Purcell			7130	7205	
L. Marcellus			7205	7244	
Onondaga Ls.			7244	7275	
Huntersville Chert			7275	7410	
Needmore Shale			7410	7462	
Oriskany			7462	7646	
Helderberg			7646	TD	
				7791	

RECEIVED
SEP 26 1989

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

(Attach separate sheets as necessary)

CNG DEVELOPMENT COMPANY

Well Operator

By:

Rod Biggs

Date:

9/15/89

Note: Regulation 2.02(i) provides as follows:
"The term 'log' or 'well log' shall mean a systematic
detailed geological record of all formations, including
encountered in the drilling of a well."

STATE OF WEST VIRGINIA
 DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS
 WELL WORK PERMIT APPLICATION

- 1) Well Operator: CNG Development Company 10110, 1, 260
- 2) Operator's Well Number: CNGD 3177 3) Elevation: 2541.7
- 4) Well type: (a) Oil / or Gas /
 (b) If Gas: Production / Underground Storage /
 Deep / Shallow /
- 5) Proposed Target Formation(s): Oriskany
- 6) Proposed Total Depth: 7800 feet
- 7) Approximate fresh water strata depths: n/a Water at 430'
- 8) Approximate salt water depths: n/a None found
- 9) Approximate coal seam depths: n/a None found
- 10) Does land contain coal seams tributary to active mine? Yes / No /
- 11) Proposed Well Work: Plugback and rework: kickoff at 3700' and directionally drill well 1200' due east
 See attached sheet
- 12)

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft.	For drilling	Left in well	Fill-up (cu. ft.)
Conductor	20"			38'	38'	
Fresh Water	13 3/8	K-55	54.5	203'	203'	To surface 88CSR-18-11.3
Coal						To surface 88CSR-18-11.3
Intermediate	9 5/8	K-55	36	2008'	2008'	To surface 88CSR-18-11.3
Production	5 1/2	M-75	17	7800	7800	250-350 sks 88CSR-18-11.1
Tubing	2 3/8	J-55	4.7	7600	7600	
Liners						

PACKERS : Kind _____
 Sizes _____
 Depths set _____

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 FEB 14 1989

For Division of Oil and Gas Use Only

DIVISION OF OIL & GAS
 DEPARTMENT OF ENERGY

Fee(s) paid: Well Work Permit Reclamation Fund WPCP
 Plat WW-9 WW-2B Bond 50 Blanket Agent
 (Type)

0506

RECEIVED
FEB 14 1989

- 1) Date: February 8, 1989
- 2) Operator's well number
CNGD 3177
- 3) API Well No: 47 - 083 - 01077-Rework
State - County - Permit

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

- 4) Surface Owner(s) to be served:
 - (a) Name John and Sylvia Burgess
Address Route 1, Box 107
Elkins, WV 26241
 - (b) Name _____
Address _____
 - (c) Name _____
Address _____
- 5) (a) Coal Operator:
 - Name _____
Address _____
 - (b) Coal Owner(s) with Declaration
Name same as surface owner
Address _____
 - (c) Coal Lessee with Declaration
Name _____
Address _____
- 6) Inspector Phillip Tracy
Address P. O. Box 2536
Elkins, WV 26241
Telephone (304)-636-8798

TO THE PERSON(S) NAMED ABOVE TAKE NOTICE THAT:

_____ Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas OR
x Included is the information required by Chapter 22B, Article 1, Section 8(d) of the Code of West Virginia (see page 2)

I certify that as required under Chapter 22B of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through _____ on the above named parties, by:

- _____ Personal Service (Affidavit attached)
- x Certified Mail (Postmarked postal receipt attached)
- _____ Publication (Notice of Publication attached)

I have read and understand Chapter 22B and 38 CSR 11-18, and I agree to the terms and conditions of any permit issued under this application.

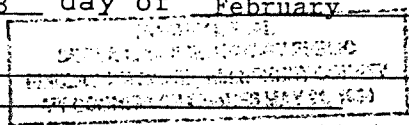
I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator CNG Development Company
By: [Signature]
Its: Supervisor Purchasing/Production Services
Address One Park Ridge Center, P. O. Box 15746
Pittsburgh, PA 15244
Telephone (412) 787-4117

Subscribed and sworn before me this 8 day of February, 1989

Phillip D. Pirick
My commission expires 5/21/90



Notary Public

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS
WELL WORK PERMIT APPLICATION

- 1) Well Operator: CNG Development Company ¹⁴⁰ 10110, 1, 260
- 2) Operator's Well Number: CNGD 3177 3) Elevation: 2541.7
- 4) Well type: (a) Oil ___ / or Gas X /
(b) If Gas: Production ___ / Underground Storage ___
Deep X / Shallow ___
- 5) Proposed Target Formation(s): Oriskany ⁴⁷⁵
- 6) Proposed Total Depth: 7200 feet
- 7) Approximate fresh water strata depths: 50,85,175,715,1170
- 8) Approximate salt water depths: - ^{From Fall. Map OK}
- 9) Approximate coal seam depths: -
- 10) Does land contain coal seams tributary to active mine? Yes ___ / No X /
- 11) Proposed Well Work: Drill well to Oriskany
- 12)

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS		FOOTAGE INTERVALS		CEMENT	
	Size	Grade	Weight per ft.	For drilling	Left in well	Fill-up (cu. ft.)
Conductor						
Fresh Water	13-7/8	K-55	54.5	200	200	To surface
Coal						3803R-18-113
Intermediate	9-5/8	K-55	36	2000	2000	To surface
Production	5-1/2	M-75	17	7200	7200	3803R-18-111 275-325 sks
Tubing	2-3/8	J-55	4.7	7100	7150	
Liners						

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SEP 29 1988

PACKERS : Kind _____
Sizes _____
Depths set _____

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

For Division of Oil and Gas Use Only

Fee(s) paid: Plat WW-9 WW-2B Bond 50 Blanket WPCP Agent

(Type)

67729
63129
60705

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SEP 29 1988

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

Date: September 22, 1988
Operator's well number
CNGD 3177
API Well No: 47 - 083 - 1077
State - County - Permit

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

4) Surface Owner(s) to be served:
(a) Name John and Sylvia Burgess
Address Route 1, Box 107
Elkins WV 26241
(b) Name _____
Address _____
(c) Name _____
Address _____
6) Inspector Phillip Tracy
Address P.O. Box 2536
Elkins, WV 26241
Telephone (304) - 636-8798

5) (a) Coal Operator:
Name _____
Address _____
(b) Coal Owner(s) with Declaration
Name same as surface
Address _____
Name _____
Address _____
(c) Coal Lessee with Declaration
Name _____
Address _____

TO THE PERSON(S) NAMED ABOVE TAKE NOTICE THAT:

_____ Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas OR

X Included is the information required by Chapter 22B, Article 1, Section 8(d) of the Code of West Virginia (see page 2)

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- X Personal Service (Affidavit attached)
- ~~X~~ Certified Mail (Postmarked postal receipt attached)
- _____ Publication (Notice of Publication attached)

I have read and understand Chapter 22B and 38 CSR 11-18, and I agree to the terms and conditions of any permit issued under this application.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator: CNGD Development Co.
By: [Signature]
Its: Supervisor Purchasing/Production Services
Address One Park Ridge Center, P.O. Box 15746
Pittsburgh, PA 15244
Telephone (412) 787-4117

Subscribed and sworn before me this _____ day of _____, 19____

My commission expires June 18, 1990

SHARON L. BROWN, Notary Public
FINDLAY TWP., ALLEGHENY COUNTY
MY COMMISSION EXPIRES JUNE 18, 1990
Member, Pennsylvania Association of Notaries